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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/085,443      | 02/28/2002  | Alan B. Duell        | HES 2002-IP-006493  | 1856             |

29920 7590 09/10/2003

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EXAMINER

CECIL, TERRY K

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/085,443             | DUELL ET AL.        |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Mr. Terry K. Cecil     | 1723                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 6-25-2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                      | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                             | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>(two)</u> . | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Claim Objections*

1. Claims 6-7 are objected to because of the following informalities: in line 1 in each of claims 6 and 7, "step of controlling" should be changed to "*steps* of controlling" since more than one controlling step is claimed in claim 1; and in line 3 of claim 6, "path" should also be plural. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Montgomery et al. (U.S. 5,775,803), hereinafter "Montgomery". Montgomery teaches a system and method of forming a slurry of water and cement entering a two-chamber, partitioned vessel 60 from respective lines via a mixing bowl (or mixing head) 55. A discharge line 80 from the vessel is also taught. The slurry overflows from the first chamber to the second by gravity. Each of the lines includes a flow meter and valve in communication with controller 100. The controller ensures a desired ratio of water and cement in the slurry and also maintains a desired level of slurry in the tank using a level sensor 65 in the second vessel chamber [as in claims 1-19]. See the entire document, especially figure 1 and col. 3, line 50 to col. 4, line 46.

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*Other Pertinent Art*

4. Before amending the claims, the Applicant should consider the following germane references that teach various aspects of the invention:

**United States Patent** [19]

[11] **4,003,431**

• **Novotny et al.**

[45] **Jan. 18, 1977**

**ABSTRACT:**

A method of cementing oil, gas or water wells and the like, wherein a solution, dispersion, suspension, or the like of a cement additive in water is prepared at a predetermined concentration of additive and is thereafter mixed with dry powdered cement to form a cement slurry, and a sample of the additive-water mixture is analyzed prior to its being mixed with the cement, to verify that the additive-water mixture contains the desired concentration of additive. The analysis of the additive-water mixture preferably is performed continuously on a sample of the mixture in a spectrophotometer, the output signal of which may be displayed on a meter or may be used to control the relative quantities of water and additive that go into the additive-water mixture.

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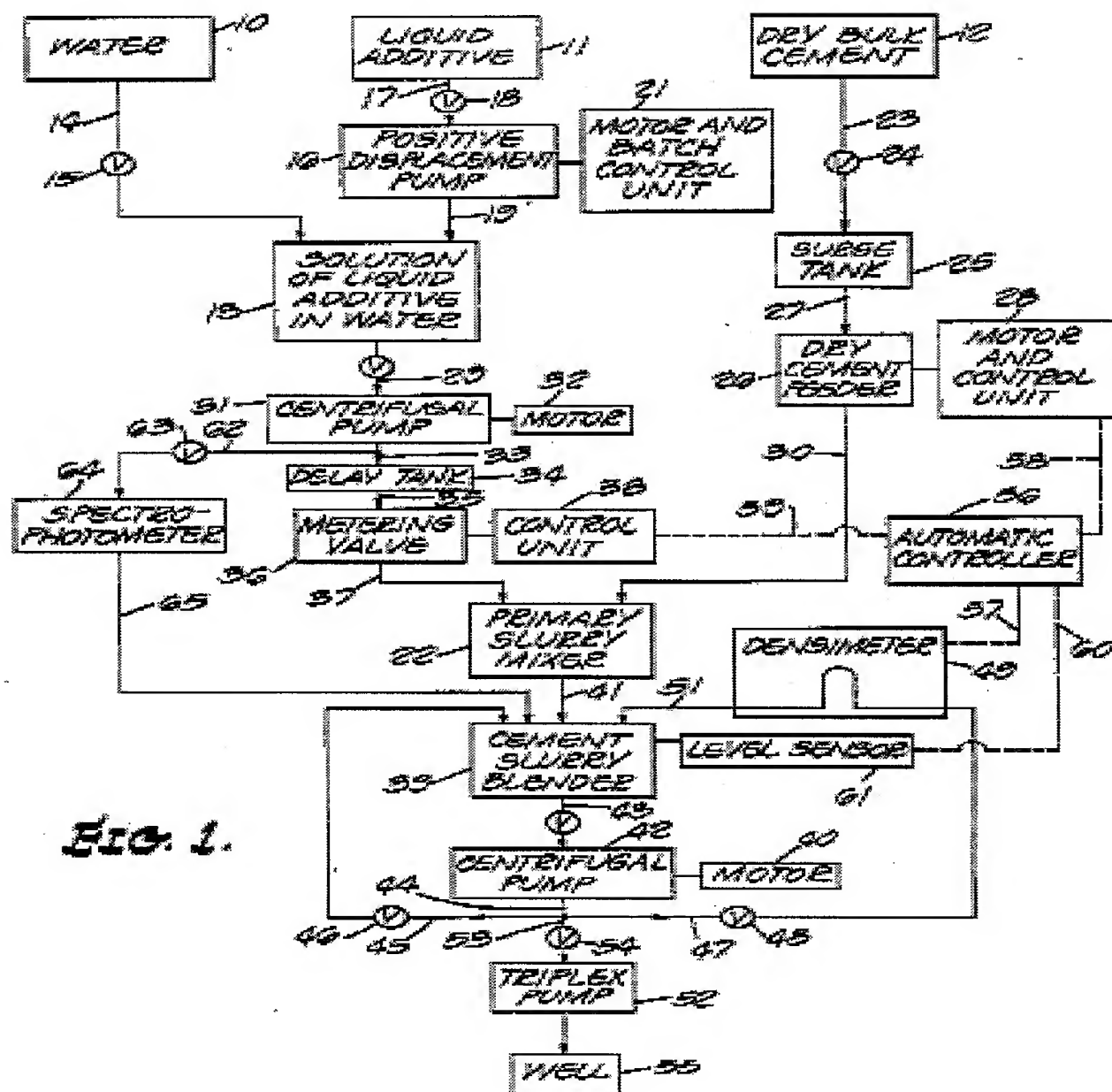
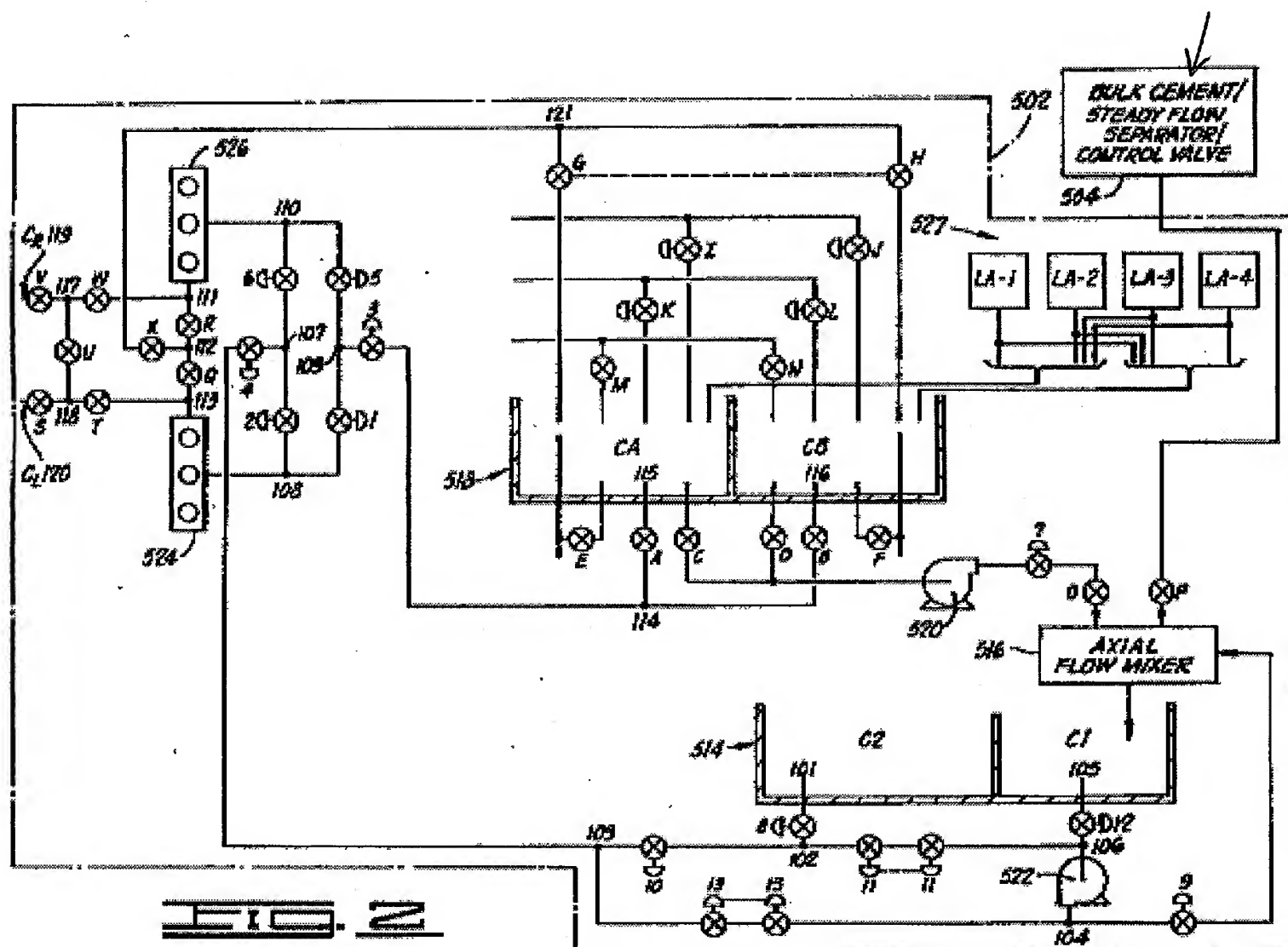


FIG. 1.

US005320425A

**United States Patent** [19][11] Patent Number: **5,320,425**

Stephenson et al.

[45] Date of Patent: **Jun. 14, 1994**

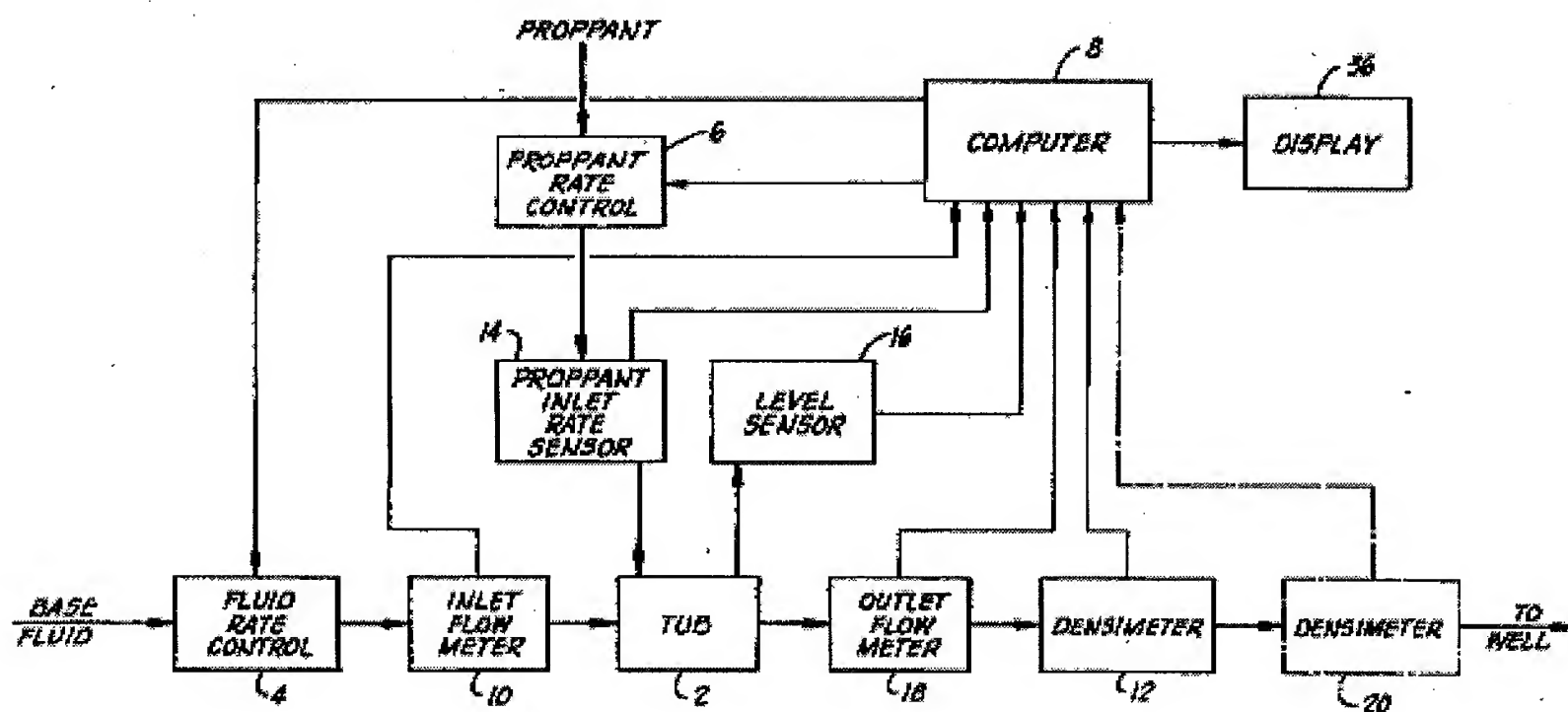
US005365435A

**United States Patent** [19][11] **Patent Number:** **5,365,435****Stephenson**[45] **Date of Patent:** **Nov. 15, 1994**

[37]

**ABSTRACT**

A system and method for determining, particularly quantitatively, a mixing efficiency of a mixing system, wherein a fracturing fluid, cement or other mixture is produced at an oil or gas well site, utilizes a mathematical model from which an ideal output characteristic is determined based on actual operating conditions obtained from the mixing system. The ideal output characteristic is compared to an actual output characteristic, and adjustments to the mixing system or an automatic control thereof can be made in response.

**FIG. 1**

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5. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (703)305-0079 for any inquiries concerning this communication or earlier communications from the examiner.

Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:00a to 4:30p, on at least four days during the week M-F.

- The group receptionist can be reached at (703)308-0661 for inquiries of a general nature or those relating to the status of this or proceeding applications.
- Wanda Walker, the examiner's supervisor, can be reached at (703)308-0457 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is 703-872-9306.



Mr. Terry K. Cecil  
Examiner  
Art Unit 1723

TKC  
September 6, 2003